

Diffusion Coefficients of Triethylamine in Electrolyte Aqueous Solvents at 298 K

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Mass diffusion coefficients for triethylamine in water and in water/NaCl are obtained experimentally by the Taylor dispersion technique at 298 K, in a range of triethylamine concentrations between 0.03 and 1 mol kg⁻¹, for different concentrations of salt.

The effect of the added salt on the structure of water as a solvent for triethylamine as well as on the interactions operating in solution is analyzed through the study of the effect on the diffusion of the solvated species.

The conclusions obtained are compared with the ones taken from the analysis of the triethylamine limiting partial molar volumes and compressibilities in the same solvents, which reflect two effects: the average size and packing efficiency of the solvent particles.